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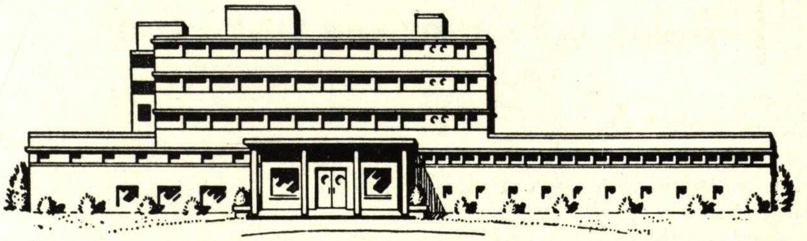
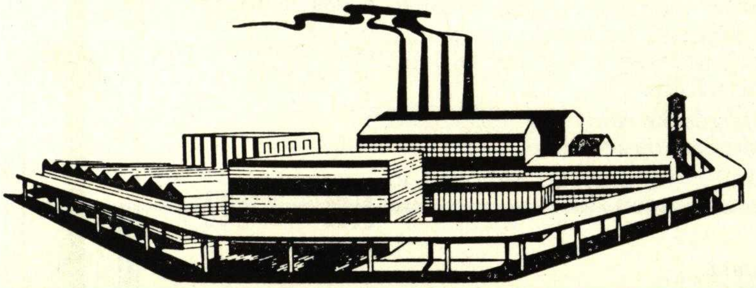
LEAD

radiation protection



hospitals



radiographic rooms
for
industrial plants

LEAD

- dense concrete blocks
- isotope storage vaults
- reactor shielding installations
- lead bricks
- test booths

specialists in lead and saraloy rubber lining application

GENERAL LEAD CONSTRUCTION CORPORATION
engineering • fabrication • installation

GENERAL LEAD CONSTRUCTION CORPORATION

Specialists in Radiation Protective Equipment

engineering, fabrication, installation

The primary requisite of complete lead protection against radiation, is a guarantee of responsibility.

Where materials are made by one responsible manufacturer and installed by one or more subcontractors on the job, the responsibility for complete radiation protection frequently rests with a third party, the general contractor, who must police the manufacture, handling and installation To eliminate split responsibility, it should be specified that manufacturer will assume complete responsibility for lead protecton, not only of the manufactured items, but also of the installation of them.

The manufacturer can do this either using his own lead mechanics to install his lead protective materials, or at least to provide an experienced supervisor for the few days usually required to install this material.

General Lead Construction Corp.

offers a threefold service to the construction industry:

1. Engineering and Design for the architect.
2. Fabrication of lead protective materials for the General Contracor.
3. Physical installation of lead protective materials, either by:
    a. our own skilled lead mechanics and masons, or by:
    b. providing an experienced supervisor during installation of lead protective materials.

lead core partition blocks

scales: ¼"=1'-0" and 1½"=1'-0"

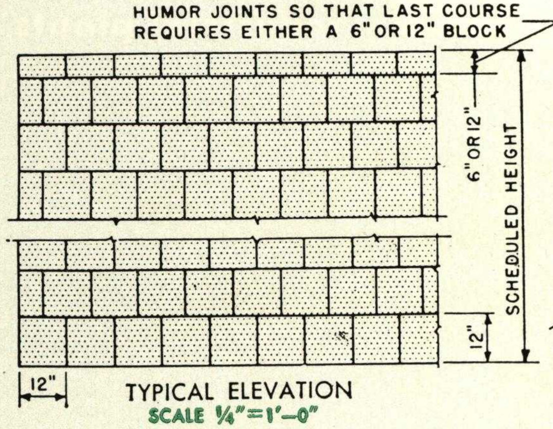
Where first class building construction of partitions is required, as well as Lead Protection, Lead Core cinder blocks should be specified.

Blocks are 12"x12"x4" thick of cinder concrete cast with a single piece of unpierced sheet lead through the center. Blocks have a cinder aggregate composition and sheet lead core has sufficient anchors to guarantee a testing compression strength of not less than 300 lbs. per square inch on edge after 28 days.

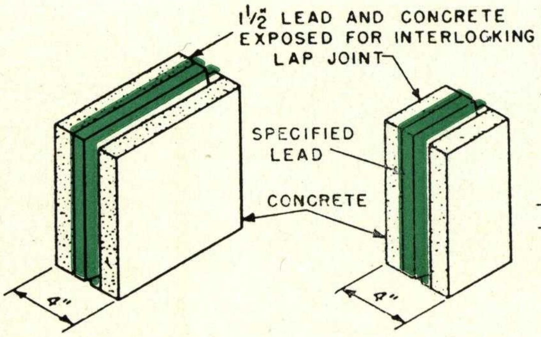
Thickness of sheet lead core to be determined by voltage of x-ray machine. Sheet Lead Core shall be exposed on all four bearing sides not less than 1½ inches to permit necessary lapping of lead with adjoining blocks, door bucks or windows.

Where building construction requires, blocks may be fabricated of 6" thickness, or of other varied thickness, as required.

Cinder slab on either side of sheet lead core, may be removed to permit plumbers pipes or electricians conduit to pass, without damage to lead.

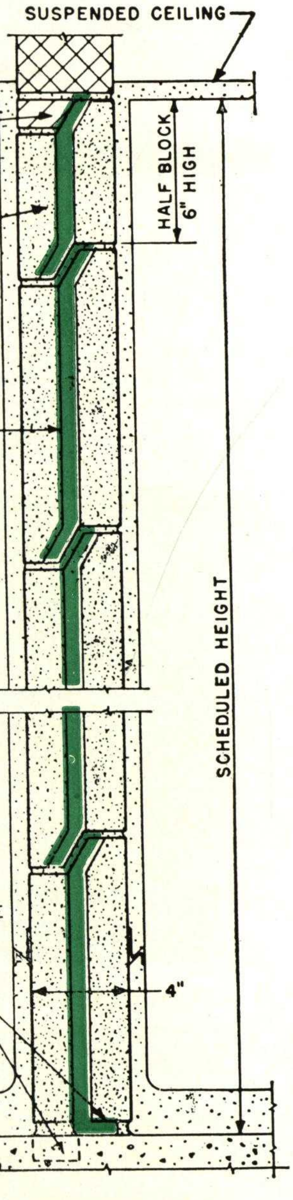

HUMOR JOINTS SO THAT LAST COURSE REQUIRES EITHER A 6" OR 12" BLOCK
6" OR 12"
SCHEDULED HEIGHT
12"
12"

TYPICAL ELEVATION
SCALE ¼"=1'-0"

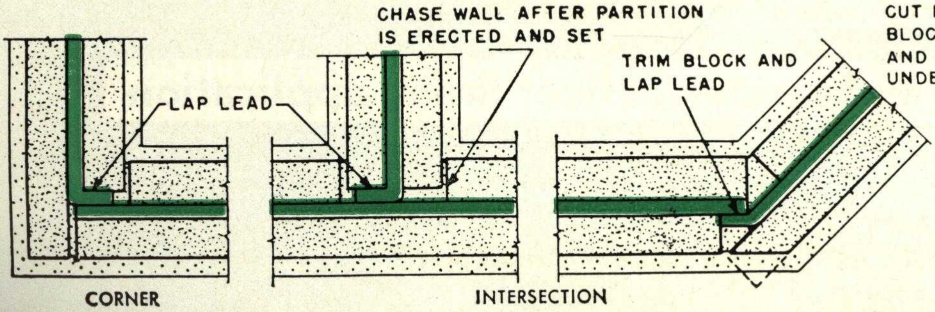


FULL BLOCK

HALF BLOCK


SUSPENDED CEILING
BRICK FILL
HALF BLOCK 6" HIGH
HUMOR JOINTS TO OBTAIN USE OF A FULL OR HALF BLOCK AT TOP COURSE
ALWAYS SPECIFY LEAD THICKNESS REQUIRED
SCHEDULED HEIGHT
CUT FIRST COURSE BLOCKS ONLY AND BEND LEAD UNDER
4"
FINISH FLOOR

VERTICAL SECTION



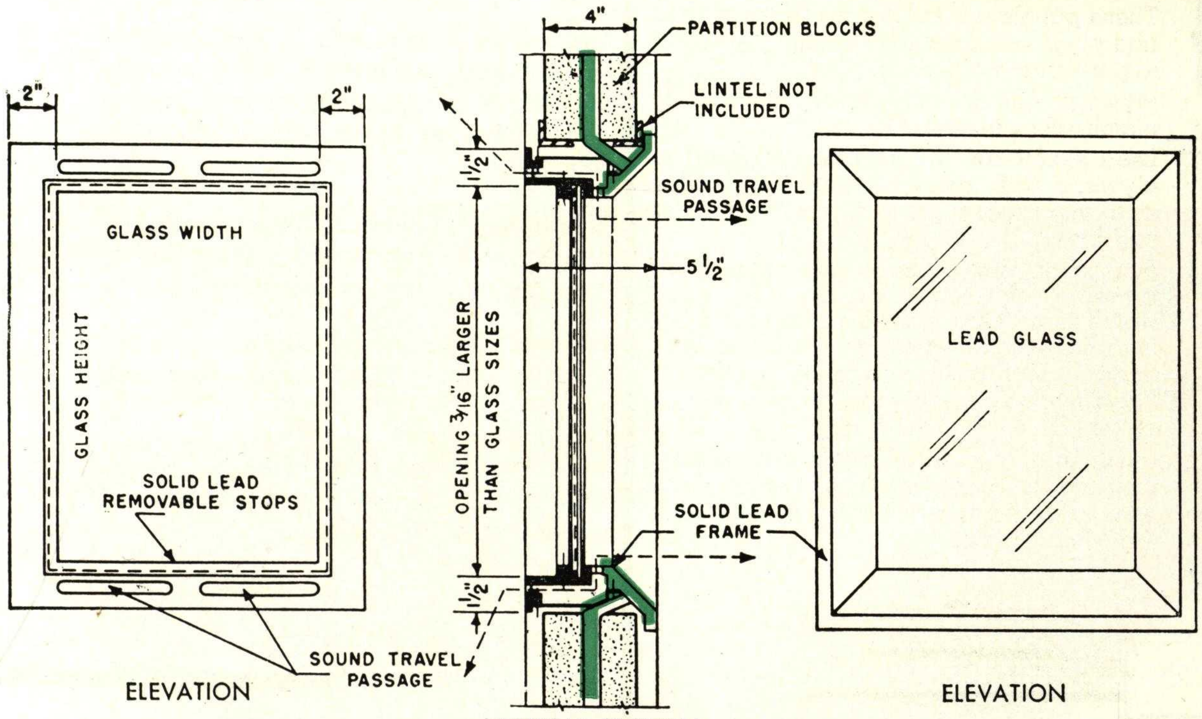
HORIZONTAL SECTION

SCALE 1½"=1'-0"

control frames

for lead operators windows

scale: 1½″ = 1′-0″



ELEVATION

VERTICAL SECTION

ELEVATION

Frames are made of solid lead, in one piece, with glass mouldings of lead.

For voice transmission, a special periscope type opening is built into the frame at bottom to allow voice transmission and still give necessary lead protection. If specified, this voice opening, can also be built into top of frame.

Frame is splayed on all four sides to give wide range of vision.

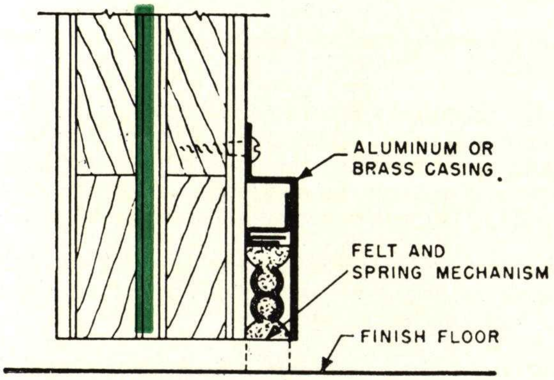
Lead glass size is usually 12″ wide by 16″ high, and frame is set 5′ 2″ from finished floor to center line of glass.

Lead glass is manufactured in standard ¼″ thickness, which is approximately the equivalent of 1/16″ sheet lead protection.

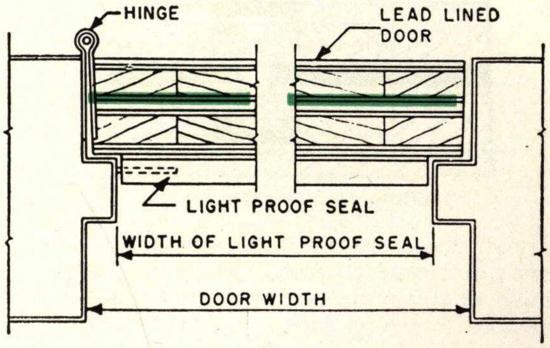
lightproofing

shades and doors

scale: 3″ = 1′-0″



VERTICAL SECTION



HORIZONTAL SECTION

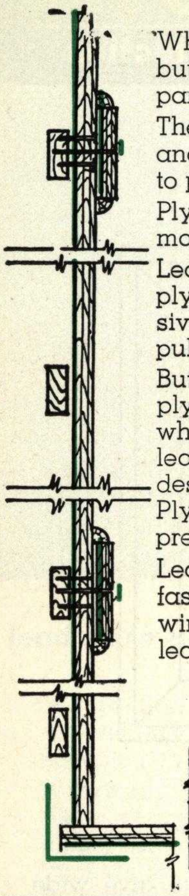
It is frequently desirable that lightproofing of doors and windows be considered a part of the radiation protection.

Lightproof window shades may be manually, mechanically or electrically operated.

Frames are of furniture steel with baked enamel finish. Frame is constructed so that parts may be removed and replaced. Cloth is lightproof, crack proof, fade proof, odorless.

Door openings to be lightproofed with heavy felt, metal bound. Bottoms may have automatic operation, if desired.

lead lined plywood panels



Where partitions require lead protection but not plastering, lead lined plywood panels should be specified.

These panels are tailor-made units of lead and plywood in sizes geometrically suited to particular wall areas.

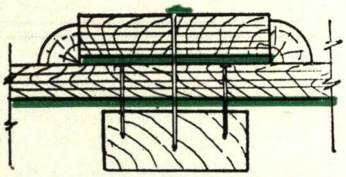
Plywood can be any finish required to match other finishes.

Lead sheets are in one piece fastened to plywood with special plastic base adhesive, guaranteed not to dry out, set up or pull loose.

Butt joints are protected by lead lined plywood joint strips, usually 1¾" wide, which span joints providing the necessary lead protection and giving a finished wall design which has eye appeal.

Plywood may be stained or painted as preferred.

Lead lined plywood panels are usually fastened to wood studs or furring with wire nails. Joint strips are fastened with lead head nails.



lead lath

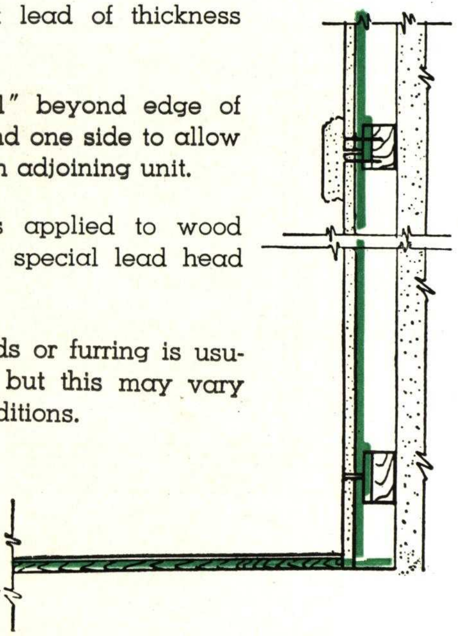
Where partitions require lead protection, plus a surface of plaster finish, lead plaster board lath should be specified.

Lead plasterboard lath is manufactured in standard commercial sizes, usually 16"x48", of ⅜" thick plasterboard, backed with unpierced sheet lead of thickness required.

Sheet lead projects 1" beyond edge of plasterboard at top and one side to allow overlapping of lead on adjoining unit.

Lead plasterboard is applied to wood studs or furring with special lead head nails.

Spacing of wood studs or furring is usually 16" on centers, but this may vary under particular conditions.



lead insulated plasterboard

Where first class building code construction of partitions is not required or for remodeling of existing rooms to permit use of x-ray equipment with adequate lead protection, and still have plaster wall surfaces, lead insulated plasterboard should be specified.

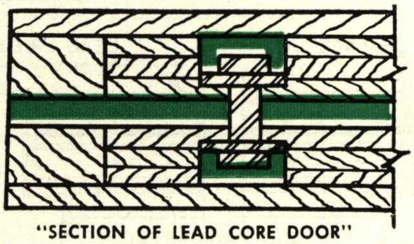
Plasterboard is made up in standard commercial sizes, usually 16" x 48", of ⅜" thick plasterboard or other standard commercial unit, backed with unpierced sheel lead of thickness specified.

Lead projects 1" beyond edge of plasterboard at top and one side to allow overlapping of lead on adjoining lead plasterboard.

Sheet lead is fastened to plasterboard with a special plastic base adhesive, guaranteed not to dry out, set up or pull loose.

Lead insulated plasterboard is applied to wood studding or furring with special lead head nails. Spacing of studs or furring is usually 16" on centers, but this may vary under particular conditions.

lead core doors



"SECTION OF LEAD CORE DOOR"

Radiation proof doors are usually specified as flush type. Doors are manufactured in any size, thickness or finish to suit architects specifications, with sheet lead core to be of thickness commensurate with radiation.

Where vision is required, doors may have radiation protective lead glass panels installed during manufacture.

Where ventilation is required, doors may have radiation protective lead louvres built in.

Lead core shall be in one single piece and full size of door.

Door is constructed of two wood cores, preferably plywood at least ¾" thick, with sheet lead core in between and fastened together with steel bolts, countersunk in cores. Poured lead covers bolt heads and nuts to guarantee complete lead protection.

Hardware may be installed on job if adequate care is taken to maintain protection by competently lining lock and hinge recesses.

Where voice control, as well as vision is required, this is accomplished by installing two lights of lead glass, offset and overlapping.

Door frames, whether metal bucks or wood must be lined with sheet lead, taking care that lead overlaps between door and frame.

GENERAL LEAD CONSTRUCTION CORPORATION

1821 Harrison Avenue **Kearny, New Jersey**

Agents in Principal Cities

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